

## Interdependence between knowledge elements and search behavior



Sai Yayavaram

The process of creating inventions can be seen as the process of recombining existing knowledge elements in novel ways to generate new inventions that have not existed before. An important question that firms and inventors face is which elements they should combine. A significant factor that needs to be considered while choosing combinations is the interdependence between the knowledge elements. Prior work has looked at the relationship between the extent of interdependencies between knowledge elements in an invention and the usefulness of the invention (Fleming and Sorenson, 2001). In this project, we would like to extend that line of research by looking at the interdependencies that exist in the technological environment (not just within an invention) and address the question of how the type of combinations that a firm should consider is affected by the density of the interdependencies.